

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (previously presented) A process for producing a composite-material semi-finished product configured to be foamed when heated for the fabrication of components having solid metallic cover layers and a closed porous metallic foam core arranged between the metallic cover layers, the process comprising:

removing under vacuum pressure, at least one gas and moisture from a powder mixture made of at least one metallic powder and at least one expanding agent powder;

compacting the powder mixture to a core layer; and

metallically joining the core layer to the composite-material semi-finished product via at least one oxide-free cover layer under a pressure and at a temperature below an outgas temperature of the expanding agent powder, wherein the at least one oxide-free cover layer is under vacuum pressure during the joining of the core layer to the composite-material semi-finished product.

2. (original) A process as defined in claim 1, further comprising:

substantially filling a container having first and second opposing covers with the powder mixture;

vacuum sealing the container;

substantially evacuating the container; and

compacting the container to simultaneously compact the powder

mixture and metallically join the powder mixture to the first and second opposing covers.

3. (previously presented) A process as defined in claim 2, wherein substantially filling the container comprises disposing a pre-compacted body made of the powder mixture, wherein the pre-compacted body is made using one of a cold isostatic pressing process or a hot isostatic pressing process.

4. (previously presented) A process as defined in claim 2, wherein compacting the container comprises using one of a high-speed forging process, an explosion forging process, an axial pressing process, a cold isostatic pressing process or a hot isostatic pressing process.

5. (original) A process as defined in claim 1, wherein removing the at least one gas and moisture from the powder mixture comprises heating the powder mixture to a temperature below the outgas temperature of the expanding agent powder during the removal process.

6. (original) A process as defined in claim 1, further comprising:
shaping the composite-material semi-finished product into a semi-finished product generally corresponding to a component; and
foaming the semi-finished product at a temperature above the outgas temperature of the expanding agent powder, within the solid/liquid range of the metallic powder, and below a melting temperature of the cover layer material to form the component.

7. (previously presented) A process as defined in claim 6, wherein the component is configured for use in at least one of an automotive application, a

ship building application, an aerospace application, a mechanical energy absorption application, a shipping container application, a thermal insulation application or an acoustical insulation application.

8. (previously presented) A process as defined in claim 1, wherein removing the at least one gas and moisture comprises removing substantially all foreign gas inclusions and moisture from the powder mixture.

9. (original) A process as defined in claim 1, wherein the core layer and the at least one oxide-free cover layer are made of aluminum, and wherein the expanding agent powder is between about 0.3 and 1.9 percent by weight of the powder mixture.

Claims 10-26 (canceled).